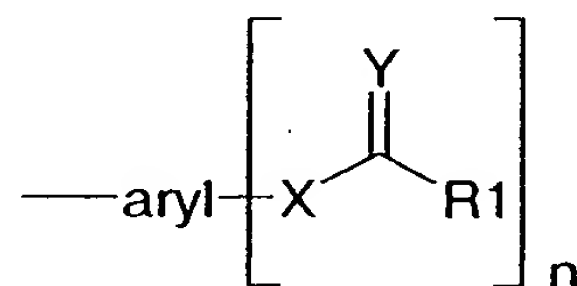


In the Claims

Claims 1 to 7 (Cancelled)

8. (Currently Amended) A conjugate which comprises a molecule ~~to be transported~~ which is capable of being transported across a biological membrane and at least one aryl radical of the formula I,



(I)

wherein

aryl is a group which contains at least one ring having an aromatic character;

X is O or N;

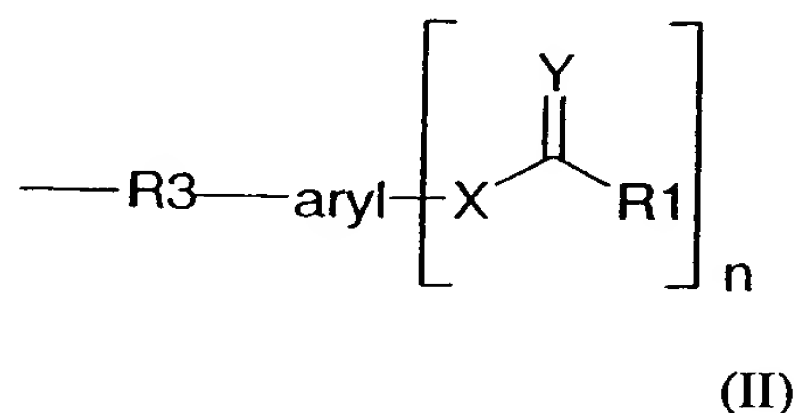
Y is O, S or NH-R<sup>2</sup>;

R<sup>1</sup> is a substituted or unsubstituted, saturated or unsaturated, C<sub>1</sub>-C<sub>23</sub> ~~alkyl~~ hydrocarbon radical, which is straight-chain or branched ~~and may contain double and/or triple bonds~~;

R<sup>2</sup> is a substituted or unsubstituted, saturated or unsaturated, C<sub>1</sub>-C<sub>18</sub> ~~alkyl~~ hydrocarbon radical, which is straight-chain or branched ~~and may contain double and/or triple bonds~~; and

n is an integer greater than or equal to 1,

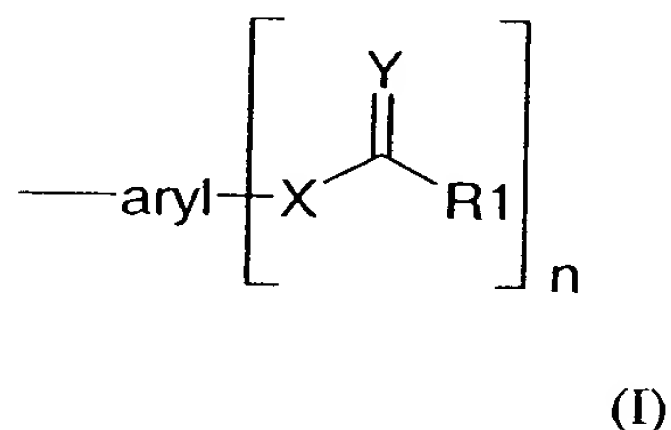
wherein the aryl radical is attached to the said molecule ~~to be transported~~ via a chemical group, and wherein the chemical group together with the aryl radical has the formula II



where aryl, X, Y and R<sup>1</sup> are as defined above, and

R<sup>3</sup> is a carbonyl or thioamide group.

9. (Currently Amended) A conjugate which comprises a molecule ~~to be transported~~ which is capable of being transported across a biological membrane and at least one aryl radical of the formula I,



wherein

aryl is a group which contains at least one ring having an aromatic character;

X is O or N;

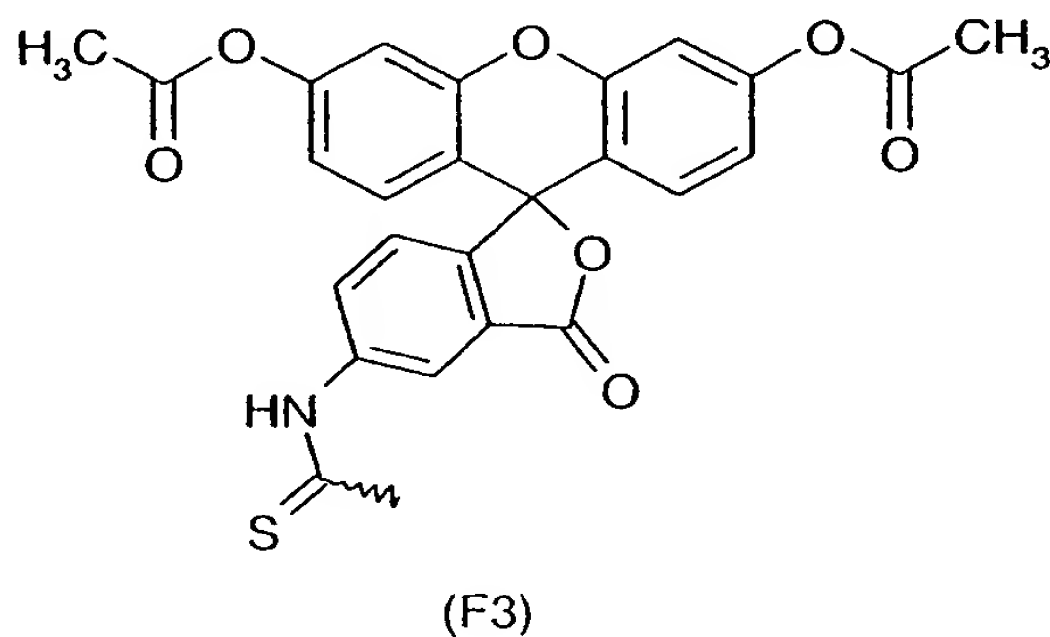
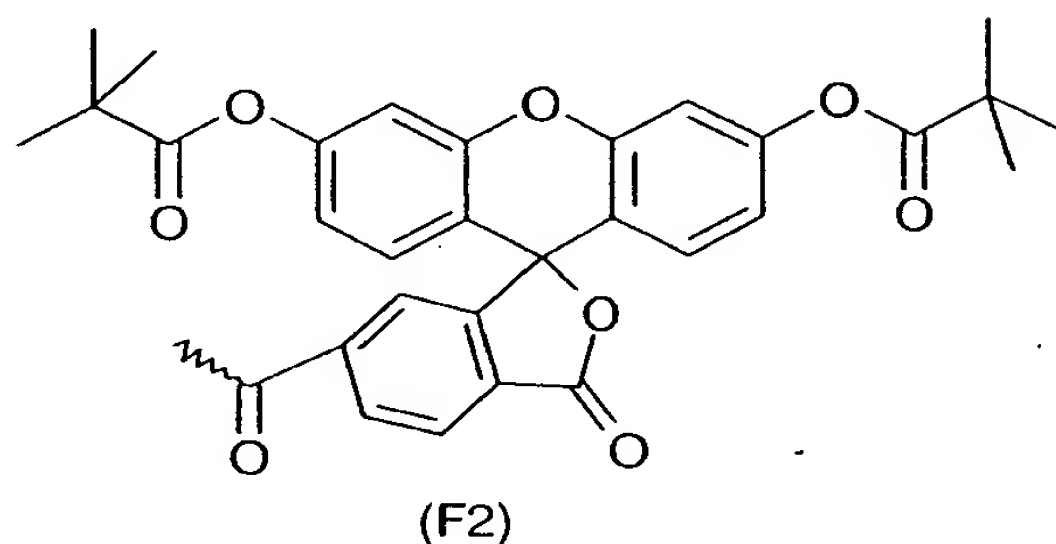
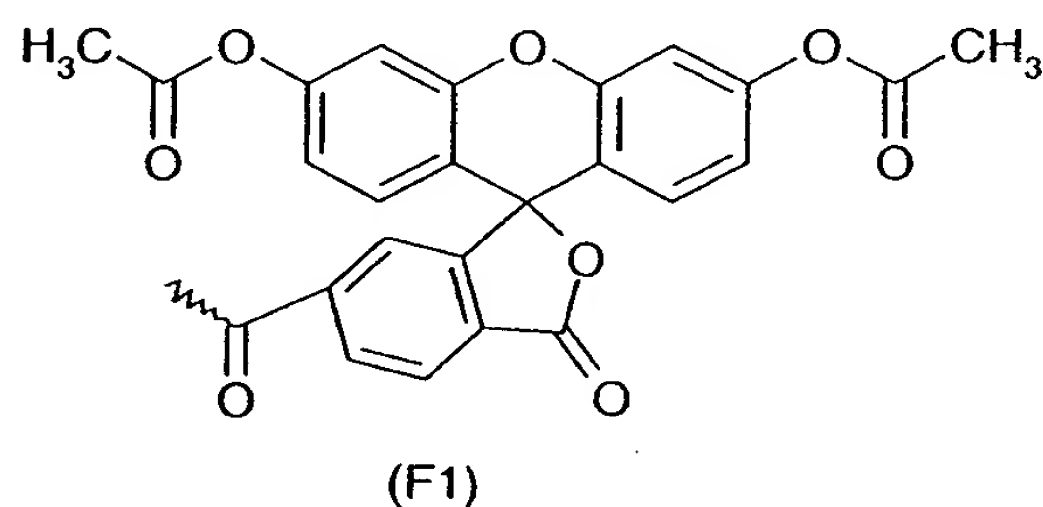
Y is O, S or NH-R<sup>2</sup>;

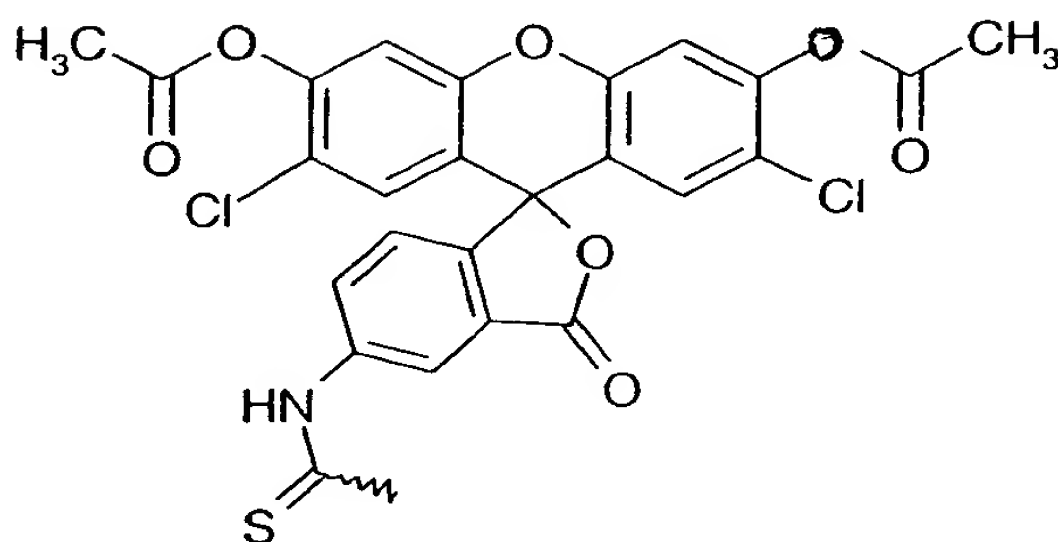
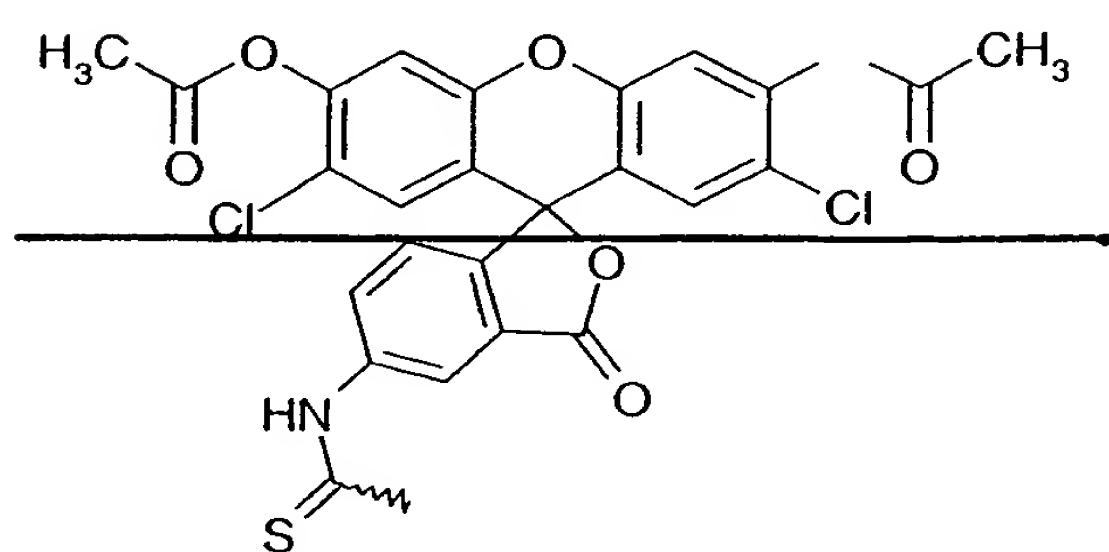
$R^1$  is a substituted or unsubstituted, saturated or unsaturated,  $C_1$ - $C_{23}$  alkyl hydrocarbon radical, which is straight-chain or branched ~~and may contain double and/or triple bonds~~;

$R^2$  is a substituted or unsubstituted, saturated or unsaturated,  $C_1$ - $C_{18}$  alkyl hydrocarbon radical, which is straight-chain or branched ~~and may contain double and/or triple bonds~~; and

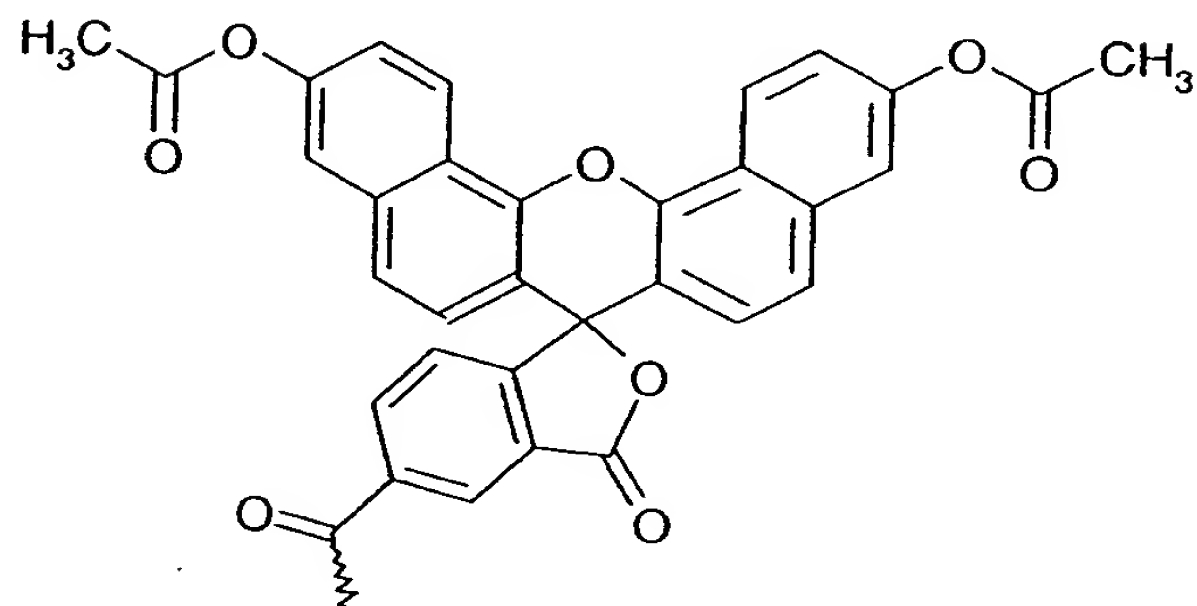
$n$  is an integer greater than or equal to 1,

wherein the aryl radical is attached to said the molecule ~~to be transported~~ via a chemical group, and wherein the chemical group together with the aryl radical together have one of the formulae F1 to F11

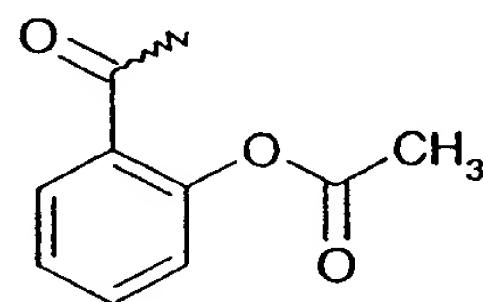




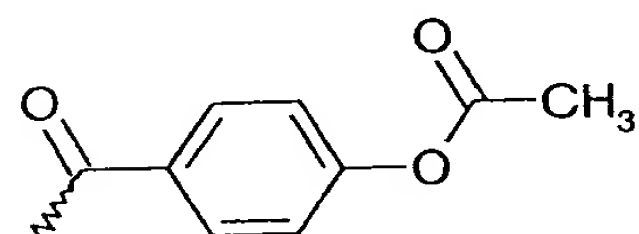
(F4)



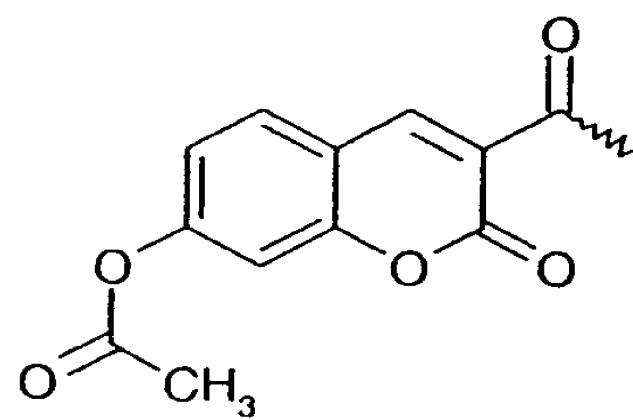
(F5)



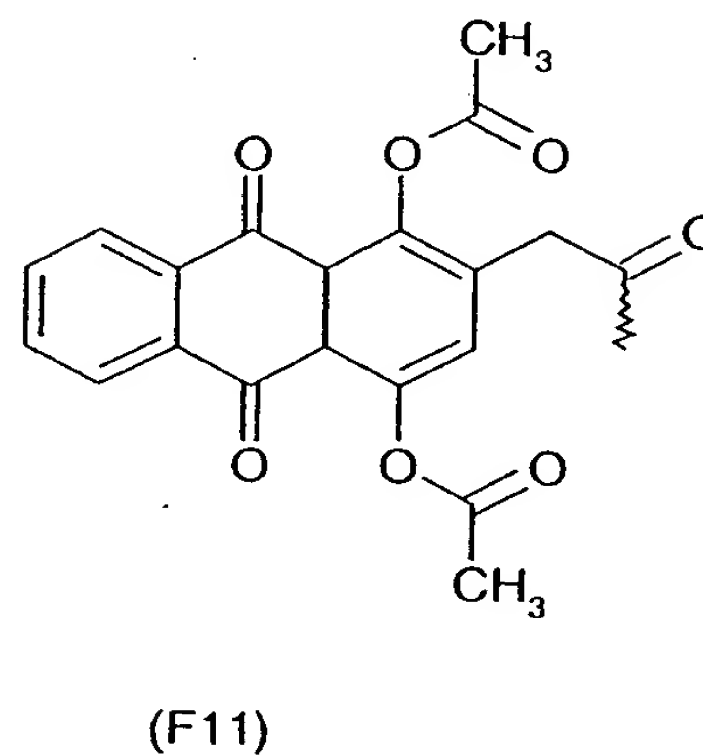
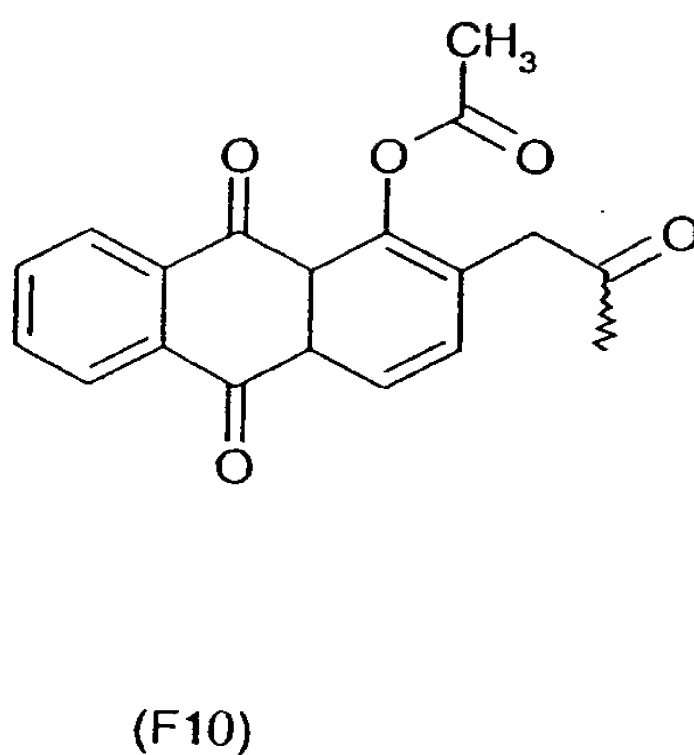
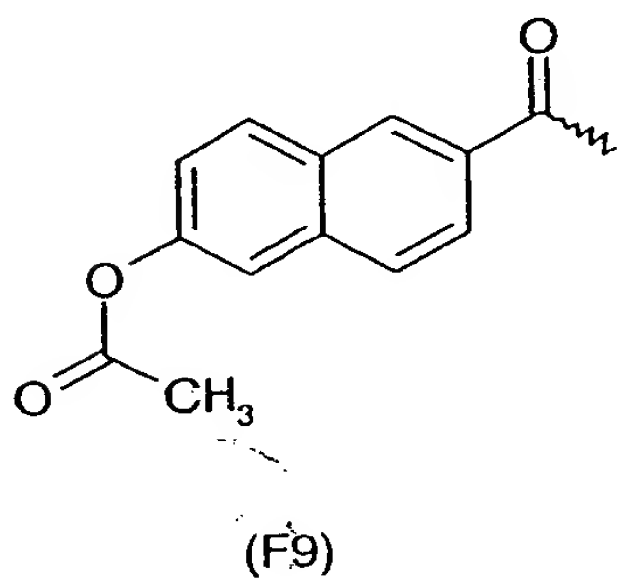
(F6)



(F7)



(F8)



10. (Currently Amended) The conjugate as claimed in claim 8 or claim 9 wherein  
said molecule comprises which comprises

a) a polynucleotide, oligonucleotide or mononucleotide and

said conjugate comprises one or more said aryl radical(s)

b) ~~one or more aryl radicals of the formula I,~~

~~wherein the aryl radical(s) is/are attached to the~~ polynucleotide, oligonucleotide or  
mononucleotide at its 5' and/or 3' end and/or to

~~5' end and/or~~

~~3' end and/or~~

one or more nucleobases and/or

one or more sugar radicals and/or

one or more internucleoside bonds thereof,

provided that ~~wherein~~ the aryl radical(s) is/are not attached by a CH<sub>2</sub>-S group if the attachment is via an internucleotide phosphodiester bond.

11. (Currently Amended) A process for preparing the conjugate as claimed in claim 8 or claim 9, ~~wherein~~

~~a) the molecule to be transported which has a reactive group at the position to which the aryl radical is to be attached is prepared; and~~

~~b) an aryl radical is prepared; and~~

including providing said aryl radical and said molecule which comprises a reactive group at the position to which the aryl radical is to be attached to said molecule and reacting

~~e) the said molecule to be transported is reacted~~ with the aryl radical to give the conjugate.

12. (Previously Presented) The process as claimed in claim 11, wherein the reactive group is an amino group, mercapto group, chloroacetyl group, isocyanate group, isothiocyanate group, carboxylic acid group, N-hydroxysuccinimide group or a carbonyl chloride group.

13. (Currently Amended) The process as claimed in claim 11, wherein the reaction of ~~the said molecule to be transported~~ with the aryl radical is carried out at a pH  $\leq$  7.5.

14. (Currently Amended) The process as claimed in claim 11, wherein the reaction of the said molecule ~~to be transported~~ with the aryl radical is carried out at a pH of 7.0.

15. (Currently Amended) The process as claimed in claim 11, wherein ~~the~~ said molecule comprises ~~to be transported~~ is a polynucleotide, oligonucleotide or mononucleotide.

16. (Currently Amended) A method for transporting a molecule across a membrane, which comprises

~~a) preparing the conjugate according to claim 8 or claim 9 in which the molecule to be transported is attached to at least one aryl radical of the formula I or II,~~

~~b) incubating the conjugate according to claim 8 or claim 9 with the membrane, whereupon~~

~~c) the conjugate is transported across the membrane.~~

17. (Currently Amended) A method for transporting a molecule into a cell, which comprises

~~a) preparing the conjugate according to claim 8 or claim 9 in which the molecule to be transported is attached to at least one aryl radical of the formula I or II,~~

~~b) incubating the conjugate according to claim 8 or claim 9 with the cell and wherein, whereupon~~

~~c) the conjugate is transported into the cell without the aryl radical being cleaved off.~~

18. (Original) The method as claimed in claim 17, wherein the cell is a eukaryotic or a prokaryotic cell.

19. (Original) The method as claimed in claim 17, wherein the cell is a bacterial cell, yeast cell or a mammalian cell.

20. (Currently Amended) The method ~~process~~ method as claimed in claim 17, wherein the cell is a human cell.

21. (Currently Amended) The ~~process~~ method as claimed in claim 17, wherein the cell is a tumor cell.

22. (Currently Amended) A process for preparing a pharmaceutical composition comprising the conjugate as claimed in claim 8 or claim 9, which process comprises providing said aryl radical and said molecule which comprises a reactive group at the position to which the aryl radical is to be attached, and reacting said molecule

~~a) preparing a pharmaceutically active compound or a derivative thereof, where said pharmaceutically active compound or said derivative contains at least one reactive group at a position to which an aryl radical is to be attached,~~

~~b) preparing an aryl radical of the formula I or II,~~

~~c) reacting the pharmaceutically active compound or its derivative with said aryl radical to give the conjugate.~~

23. (Previously Presented) The process of claim 22, further comprising admixing the conjugate with an additive and/or an excipient.

24. (Previously Presented) A pharmaceutical composition, comprising the conjugate as claimed in claim 8 or claim 9.



25. (Previously Presented) A diagnostic aid, comprising the conjugate as claimed in claim 8 or claim 9.

26. (Previously Presented) A test kit, comprising the conjugate as claimed in claim 8 or claim 9.

27. (New) The conjugate as claimed in claim 8, wherein said molecule is a macromolecule having a molecular weight of greater than 500 Daltons.

28. (New) The conjugate as claimed in claim 8, wherein said molecule comprises a polynucleotide, a polypeptide, or a polysaccharide.

29. (New) The conjugate as claimed in claim 8, wherein said molecule comprises an oligonucleotide.

30. (New) The conjugate as claimed in claim 29, wherein the oligonucleotide is modified.

31. (New) The conjugate as claimed in claim 8, wherein said molecule has a molecular weight of less than 500 Daltons.

32. (New) The conjugate as claimed in claim 31, wherein said molecule comprises a mononucleotide.

33. (New) A conjugate according to claim 8 or claim 9 wherein  $R^1$  and  $R^2$  are unsubstituted.

34. (New) A conjugate according to claim 33 wherein  $R^1$  is unsaturated.

35. (New) A conjugate according to claim 8 or claim 9 wherein  $R^1$  and  $R^2$  are substituted.

36. (New) A conjugate according to claim 35 wherein the substituent on R<sup>1</sup> is an aryl radical.